Written Reports

Suggestions for Good Scientific Writing

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Written Reports

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Suggestions for Good Scientific Writing

Part I

General Suggestions

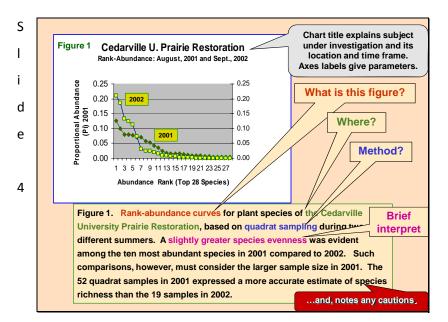


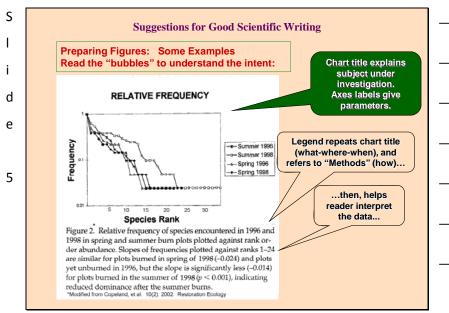
Written Reports

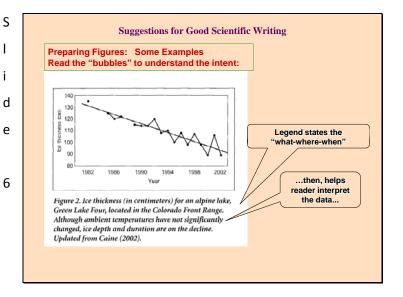
Suggestions for Good Scientific Writing

Writing METHODS – A Few Suggestions

- 1. You may use first person plural (e.g. We measured light flux density...) or passive voice (e.g. Light flux density was measured...)
- 2. Place the subject of each sentence as early as possible in the sentence.
 Poor: "In order to determine light attenuation, we measured light..."
 Better: "We determined light attenuation based upon measured light..."
- 3. Make two concise sentences rather than a long string of clauses.
- 4. Be precise so that the reader could repeat your "Methods" and obtain your materials and instruments.

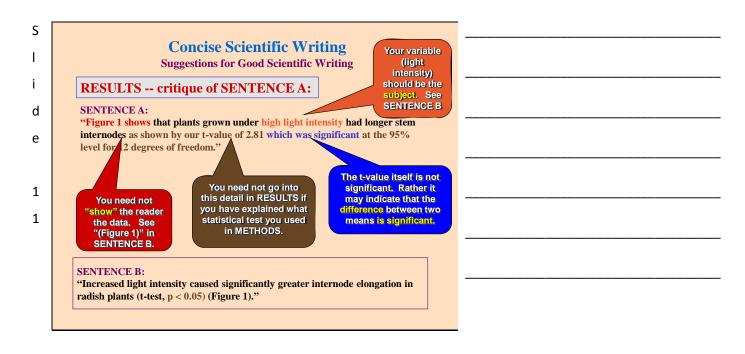






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I	Suggestions for Good Scientific Writing	
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d	Writing RESULTS or DISCUSSION:	
e	Which of the following sentences states the experimental results best?	
7	SENTENCE A: "Table 2 shows that the most dominant plant species are Indian Grass and Tall Goldenrod."	
	SENTENCE B: "Indian Grass and Tall Goldenrod are the most dominant plant species of the prairie restoration site as estimated by random plot sampling (Table 2)."	
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l	Concise Scientific Writing Suggestions for Good Scientific Writing	
	RESULTS critique of SENTENCE A:	
b	SENTENCE A:	
9	"Table 2 shows that the most dominant plant species are Indian Grass and Tall Goldenrod."	
8	"Table 2" above makes a poor subject, See "Tou need not "show" the reader the data. See reference to "(Table 2)" in	
	SENTENCE B. SENTENCE B. determine (see Sentence	
	B.)	
	SENTENCE B: "Indian Grass and Tall Goldenrod are the most dominant plant species of the prairie restoration site as estimated by random plot sampling (Table 2)."	

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	Part II		
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	Using Statistics in Your Results and Discussion		
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I	Written Reports Suggestions for Good Scientific Writing		
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d	Writing RESULTS – Referring to Statistical Testing		
e	Which of the following sentences states the RESULTS best?		
	SENTENCE A:		
1	"Figure 1 shows that plants grown under high light intensity had longer stem internodes as shown by our t-value of 2.81 which was significant at the 95% level for 12 degrees of freedom."		
0			
	SENTENCE B: "Increased light intensity caused significantly greater internode elongation in radish plants (t-test, $p < 0.05$) (Figure 1)."		



Concise Scientific Writing Suggestions for Good Scientific Writing	
Here is a critique of two sentences which refer to statistical probability.	
SENTENCE A: "Figure 1 shows that plants grown under high light intensity had longer stem	
internodes as shown by our t-value of 2.81 which was significant at the 95%	
level for 12 degrees of freedom."	
Reader encounters indicates that you have based your claim on statistical tests (see blue bubble below).	
SENTENCE B:	
"Increased light intensity caused significantly greater internode elongation	
(t-test, p < 0.05) in radish plants (Figure 1)." Reader will know where	
Brief parenthetical reference to (test supports your claim of "significantly greater" meaning that you can reject H _o with < 5% chance of Type I error.	

Suggested Basic Format for Data Table:

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Table 1. Effect of Low Soil Water Potential on Soybean Leaf Mass and Chlorophyll Content

Parameters ->	→ Soil Ψw and Leaf Mass (mg)			Soil \(\Psi \) w and Chlorophyll (SPAD Units)		
Comparisons ->	Optimal vs. Low	Optimal vs. Interm	Intermed . vs. Low	Optimal vs. Low	Optimal vs. Interm	Intermed. vs. Low
Means						
Degrees of Freedom						
t-values						
p						